VI NINHYDRIN-BLOOD PROTEIN DETECTION

6.1 INTRODUCTION

Ninhydrin is a protein indicator particularly sensitive to alpha amino acids but ninhydrin is also sensitive to the proteins present in blood. Ninhydrin can be used on any surface but should primarily be used on porous items. Porous items can be processed with ninhydrin visualizing both blood proteins and other alpha amino acids.

6.2 PREPARATIONS

See Chemical Processing of Porous-Ninhydrin

6.3 INSTRUMENTATION

See Chemical Processing of Porous-Ninhydrin

6.4 MINIMUM STANDARDS AND CONTROLS

See Chemical Processing of Porous-Ninhydrin

6.5 PROCEDURE OR ANALYSIS

See Chemical Processing of Porous-Ninhydrin

6.6 INTERPRETATION OF RESULTS

The blood impressions as well as other protein based impressions will be intensified and additional detail not previously visible may be revealed. Ninhydrin coloration is not permanent, and while some impressions have remained visible for years, others have faded in a matter of days. Photographic preservation is essential and should be accomplished as soon as possible. Image density is usually improved using a color compensating filter during photography.

A green filter, Wratten #58, is usually preferred; however, with yellowish backgrounds, a yellow filter, Wratten #12, gives both added intensity and lessen background interference. Other shades of green and yellow, alone or combined, may provide even better complement.

6.7 REFERENCES

1. Footwear Impression Evidence, Bodziak, 1990, p 169